Game Changing Development

Portable Passive Fast Light Optical Gyroscope (FLOG)

Completed Technology Project (2012 - 2016)

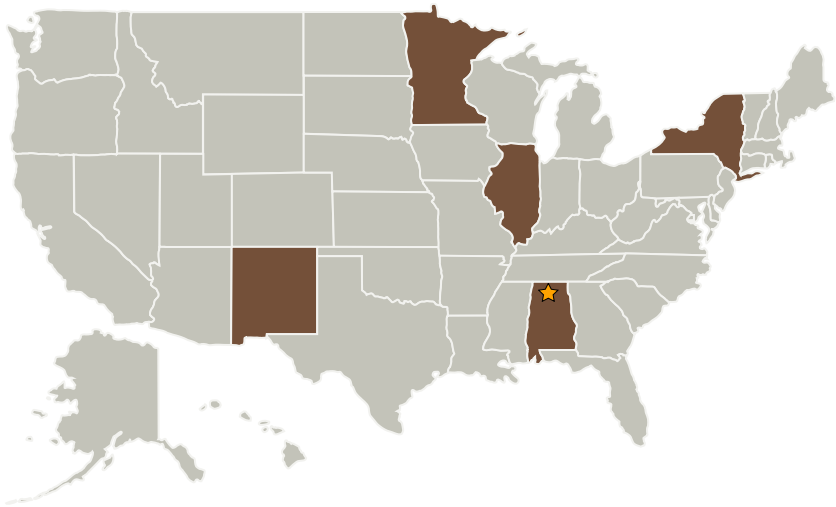
Project Introduction

Design, build, and test the first passive and active fast light optical gyros (FLOGs), progressing down in size from an optical table top, to a small optical breadboard, to a vacuum packaged mechanically-hardened version, with the ultimate goal to be able to detect rotation rates orders of magnitude smaller than current best technologies without increasing gyroscope size.

Anticipated Benefits

NASA unfunded: Extends time for standalone navigation. New science possibilities (gravity waves, general relativity, etc.).

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Marshall Space Flight Center(MSFC)	Lead Organization	NASA Center	Huntsville, Alabama

Primary U.S. Work Locations	
Alabama	Illinois

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Primary U.S. Work Locations *(cont.)*	
Minnesota	New Mexico
New York	

Project Transitions

September 2012: Project Start

September 2016: Closed out

Project Website:

https://www.nasa.gov/directorates/spacetech/home/index.html

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Marshall Space Flight Center (MSFC)

Responsible Program:

Game Changing Development

Project Management

Program Director:

Mary J Werkheiser

Program Manager:

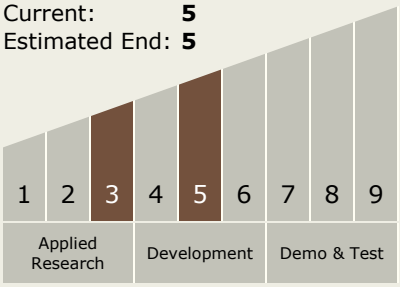
Gary F Meyering

Principal Investigator:

David D Smith

Technology Maturity (TRL)

Start: **3**
Current: **5**
Estimated End: **5**



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Target Destination

Foundational Knowledge